

## **Terrestrial Conservation Focus Areas in Greatest Need (Tier I)**

### **Mission/Swan Valley and Mountains (679,663 acres)**



Figure 19. Mission/Swan Valley and Mountains Focus Area

This area is geologically similar to Glacier National Park, with the Swan Valley sandwiched in between the heavily glaciated ranges of the Mission and Swan mountains. The mountain ranges and a strong Pacific storm track produce an inland maritime climate over a topography ranging from alpine ridges, cirque headwalls, and cirque basins down to moraines, terraces, and creek and river bottoms. The area is heavily forested and has relatively fertile soils, most of which have a 6- to 12-inch-thick layer of volcanic ash immediately below the organic matter, a result of eruptions in the Cascade Range. The valley bottom, in addition to the riparian areas along streams and rivers, is composed of a wide array of wetlands such as fens/peatlands, marshes, vernal pools, ponds, and lakes, with the valley bottom area consisting of more than 15 percent wetlands (compared to the Montana average of less than 2 percent wetlands). The area currently provides critical habitat for wildlife such as the grizzly bear, lynx, bull trout, bald and golden eagle, peregrine falcon, common loon, northern goshawk, and wolverine. More common wildlife species include whitetail and mule deer, elk, mountain goat, moose, black bear, mountain lion, bobcat, and beaver, along with a host of other mammals, fish, waterfowl, raptors, and songbirds. The valley contains one of the highest concentrations of rare plant populations in the region, with most of them being associated with wetland habitats, such as the water howellia.

#### **Landscape Characteristics**

This area is a large intermontane valley with adjacent block-faulted mountains that formed in valley fill, till, and metasedimentary rock. Volcanic ash influences

most soils. Alpine glaciation has strongly shaped the landscape. Elevations range from 2,900 to 9,300 feet. Drainage density is moderate, and wetlands and lakes occur frequently in this subsection. Mean annual precipitation ranges from 20 to 110 inches, with about 80 percent falling as snow in the mountains. The soil temperature and moisture regimes are cryic and udic. The primary natural disturbances are fire, insects, and windthrow. Land use is predominantly resource management and outdoor recreation with rural and suburban development in the valleys. The breakdown for land stewardship in the Mission/Swan Valley and Mountains area is as follows:

U.S. Federal Agencies:	375,477 acres, or 55.2% of total area, which include:
USFS:	373,870 acres, or 55% of total area
USFWS:	1,606 acres, or 0.2% of total area
State Agencies:	45,344 acres, or 6.7% of total area
Tribal Lands:	99,089 acres, or 14.6% of total area
Private:	159,136 acres, or 23.4% of total area

### Associated Habitats

Habitat	Habitat Tier	Percentage of Area
Snowfields or Ice	II	2.09
Douglas Fir/Lodgepole Pine	III	2.36
Western Larch	III	2.55
Montane Parkland and Subalpine Meadow	III	4.16
Rock	III	4.38
Mixed Mesic Shrubs	II	5.21
Douglas Fir	II	10.12
Lodgepole Pine	III	10.61
Mixed Subalpine Forest	III	14.57
Mixed Mesic Forest	II	31.64

Note: A total of 87.68% of the Mission/Swan Valley and Mountains area is represented; 12.32% is made up of a combination of other habitat types.

### Associated Species of Greatest Conservation Need (Tier I Species)

There are a total of 246 terrestrial vertebrate species that are found within the Mission/Swan Valley and Mountains Focus Area. Tier I species are listed below. All associations can be found in Table 24.

**Amphibians:** Western Toad

**Birds:** Common Loon, Trumpeter Swan, Harlequin Duck, Bald Eagle, Flammulated Owl, Black-backed Woodpecker, and Olive-sided Flycatcher

**Mammals:** Townsend's Big-eared Bat, Hoary Marmot, Northern Bog Lemming, Gray Wolf, Grizzly Bear, and Canada Lynx

### Conservation Concerns & Strategies

Conservation Concerns	Conservation Strategies
Habitat fragmentation and loss of connectivity, especially as a result of human population growth/development and related transportation network	Support strategic conservation easements by conservation organizations and public agencies
	Promote further development of county ordinances that help guide future residential and commercial development
	Identify and prioritize key wildlife linkage areas, and work with other state and federal agencies, conservation groups, and landowners to restore wildlife connectivity
	Work with Montana Department of Transportation and Federal Highway Commission to effectively mitigate impacts of highway construction
Range or forest management practices	Support government and private conservation activities that encourage and support sustainable land management practices (example; rest and rotation schedules)
Streamside residential development	Develop statewide riparian best management principles
Invasive or exotic plant species	Participate in partnerships to develop and implement weed control strategies
Human/wildlife conflicts and related wildlife mortality	Public education regarding human/wildlife conflicts
	Work with Montana Department of Transportation and Federal Highway Commission to effectively mitigate impacts of highway construction
Altered fire regimes	Work with coordinating agencies to mimic natural fire regimes

### References

The Nature Conservancy. 2004. Canadian Rocky Mountains Ecoregional Assessment. Four volumes, including Report, Appendices, Conservation Area Descriptions, and Maps.

U.S. Fish and Wildlife Service. 2004. Conservation Focus Areas of the Great Divide: a vast region encompassing the Upper Missouri, Yellowstone and upper Columbia watersheds. Publisher: USFWS, Benton Lake Wildlife Refuge, Great Falls, MT. 77 pp.